DOCUMENT RESUME

ED 335 149 PS 019 792

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TITLE Factors Influencing Children's Help-Seeking Styles.
PUB DATE Apr 91
NOTE 21p.; Paper presented at the Annual Conference of the American Educational Research Association (Chicago, IL, April 3-7, 1991).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Ability; *Elementary School Students; Grade 5; Helping Relationship; *Help Seeking; Homework; Intermediate Grades; Mathematics Instruction; *Mothers; *Parent Student Relationship; Personal Autonomy; Reading Instruction; Student Behavior; *Teacher Student Relationship

ABSTRACT

This study examined factors assumed to influence children's help-seeking styles in the classroom in the domains of math and reading. Children's rating of their comfort in asking for help, and the relation between mothers' helping strategies and children's help-seeking styles, were also investigated. Fifth graders (N=190) completed questionnaires assessing their comfort in seeking help, and their self-concept of ability (SCA) in math and reading. Teachers provided assessments of the students' help-seeking styles and talent in math and reading. Mothers reported the number of times they used various types of helping strategies with their child. Results indicated that children's SCA and their talent as rated by the teacher were related to help-seeking style. Children with low SCA and little talent were less likely to seek help when it was appropriate and were more likely to seek help even before they tried to solve a problem. There were no gender differences in help-seeking patterns. Gender and SCA were not related to children's comfort in seeking help. There was no relationship between the type of helping strategies mothers used and their children's help-seeking styles. (16 references; 4 tables/figures) (BC)

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Factors Influencing Children's Help-Seeking Styles

ED335149

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Paper presented at the annual meeting of the American Education Research Association, Chicago, April, 1991

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ABSTRACT

This study examined various factors assumed to influence children's help-seeking styles in the classroom within the domains of math and reading. Children's rating of their comfort in asking for help was also investigated. Of primary interest was how mothers' helping strategies may relate to children's help-seeking styles. We hypothesized that mothers who provide structured guidance in the type of help they give will have children who have learned how to assess more appropriately when they need help. Fifth grade students, their mothers and their teachers were involved in this study. Students completed questionnaires assessing their comfort in seeking help, and their self-concept of ability (SCA) in both math and reading. Teacher measures provided assessments of both the students' help-seeking style, and the students' talent in both math and reading. Mothers reported how often they use different types of helping strategies with their child. Mothers also rated their child's competence in math and reading. Results indicated that children's SCA, as well as their talent as rated by the teacher, are related to help-seeking style, particularly in math. Children with low SCA and low assessed Talent compared to their more confident and able peers, were less likely to ask for help when it was appropriate and more likely to ask for help before even trying to solve a problem. There were no gender differences in help-seeking patterns. Gender and SCA were not related to the children's report of their comfort in seeking help. Contrary to predictions, there was no relationship between the type of helping strategies mothers use and their children's help-seeking styles.

PURPOSE OF RESEARCH

Independent striving is assumed to be one important component in models of autonomous learning behavior, along with choosing, persisting and achieving at high level tasks (Fennema & Peterson, 1985; Peterson & Fennema, 1985). However, while Fennema and Peterson (1985) stress the importance of working without help on a task, there are also costs associated with not seeking help at a point when help would be more beneficial than giving up or continuing without success (Nelson-Le Gall, 1985). In contrast to inadequate help-seeking, excessive help-seeking occurs when the student seeks help prior to making any independent or autonomous attempt at problem mastery (Nelson-Le Gall & Glor-Scheib, 1986). Students who monitor a task, and then ask for help at an appropriate timepoint - when they have gained knowledge about what kind of help would enhance their problem solving ability, may be perceived as engaging in autonomous learning. These students use academic help-seeking as an executive self-regulated learning strategy (Newman, 1990).

Previous research has found that it is often those students most in need of help who report the most reluctance to seeking help from others (Newman & Goldin, 1990, Karabenick & Knapp, 1988). The relationship between need and timing of actual requests for help is less clear. In addition to "need," gender has been examined in relation to help seeking. In general, no differences in girls' and boys' reports of the likelihood of their seeking help have been found (Newman, 1990; van der Meij, 1988) and both boys and girls appear to ask similar numbers of questions in classrooms (Good and Slavings, 1987). Less explored has been gender differences in the timing of requests for help. Timing may be critical, as gender differences in autonomous learning behaviors have been proposed as possible explanations for gender differences in mathematics performance (Peterson & Fennema, 1985).

Correlates of the variations in children's help-seeking styles may be evident in parents' use of different kinds of help-giving. For instance, when a parent hints to a child, the child has some autonomy in solving the problem, but the parent provides a supportive "scaffolding" (Wood, Bruner & Ross, 1976). Parents' general support of autonomy appears to relate to children's self-regulated learning behaviors in a positive way (Grolnick & Ryan, 1989). We hypothesize that parents who provide structured guidance that leaves some of the problem solving in the hands of children will have children who are better able, or willing, to assess when they would benefit from help.

In this study we focus primarily on the timepoint in the process of doing schoolwork that the child goes to the teacher for help. We emphasize, however, that not only are those students who do not seek help when needed at risk, but also that those students who do not make independent attempts prior to asking for help are asking for help "too soon" and may be less likely to develop autonomous behaviors for solving subsequent (and more difficult) problems.

SPECIFIC AIMS

1. To examine gender and ability level differences in children's A) timing of requests for help, or "help-seeking style," and B) expressed comfort in seeking help.

2. To explore mothers' scaffolding of their children's problem-solving attempts in terms of the level of structured autonomy they provide for their child in order to assess the following: A) whether mothers' use of a strategy shows "sensitivity" or is related to child's ability or gender, and B) how the type of help giving used by mothers is related to their children's help seeking styles.

3. To determine how observations of children's help-seeking style are related to children's report of how comfortable they feel asking for help.

METHOD

Participants

Data for this study were collected as part of a larger, four year study of 540 children, their parents and teachers. Approximately 190 students (91 males, 99 females) from 33 classrooms in the fifth grade participated in this project, along with their teachers and their mothers in the Spring of 1989. These children attended public school in two middle income districts in primarily white suburbs of a large metropolitan city.

Measures

1. Help-seeking

A) To measure help-seeking behavior in math and in reading, we had teachers rate the timing of children's requests for help on a seven point scale anchored as follows:. 1- asks too soon, 4-asks when appropriate, and 7-doesn't ask even when appropriate. Children were categorized from these scores as having an Excessive (1-3), Appropriate (4), or Inadequate (5-7) help-seeking style. In both domains the percentages were approximately 20%-60%-20%.

B) Children rated how comfortable they felt asking their mother, father, and teacher for help on a seven point scale, anchored at the extremes with these descriptors: 1-Not at all comfortable,
7-Very comfortable.

2. Ability

A) Children rated their self-concept of ability (SCA) on a series of items that had been previously validated (Eccles, 1988). The scale included such items as "How good in math (reading) are you?" Children were divided into three groups based on their scores on each of the following scales: SCAgeneral (alpha=.72), SCAmath (alpha=.79), and SCAread (alpha=.86). Cuts were made at one standard deviation above the mean, and one standard deviation below the mean.

B) Teachers rated children's innate ability or talent for math and for reading on a seven point Likert scale from 1-very little, to
7-a lot. Again three groups, low, average, and high talent were formed by cutting the group at one standard deviation above the mean, and one standard deviation below the mean.

C) Mother's perception of children's competence in both math (alpha=.94) and reading (alpha=.94) was assessed using summary scales that had been previously validated (Eccles, 1988). The scales included such items as "How good is this child in Math (Reading)?" Children were divided into three groups, Low, Average and High, based on these two scales, using the same criterion as for previous constructs.

3. Help Giving

A) Mothers were asked how often they used each of four different helping strategies as a first step when their child came to them for help in math/reading. These were derived to reflect a dimension of helping varying from very specific help to very nonspecific help (Hermans, Ter Laak, & Maes,1972). The statements are ordered to reflect an increasing amount of independence given the child in solving difficult schoolwork problems. See Figure 1

B) Mothers and children also rated the time parents spent helping their children with homework (anchors for mothers were 1-never, 4-weekly, and 7-almost every day for a long while; anchors for children were 1-almost never, 4-some of the time, 7-all of the time).

RESULTS

Help seeking style

Gender Differences

The frequency of sex by help-seeking style was examined in two separate 2 (boy/girl) X 3 (Excessive, Appropriate, Inadequate) Chi-square tests in math and reading. There were no significant gender differences.

In order to test the possibility of an interaction effect of ability and sex in relation to help-seeking style, a variable was created that combined sex with ability level (a pattern variable). This pattern variable was entered into a Multivariate Nominal Scale Analysis (see Andrews & Messenger, 1973). Results indicated that the interaction variable was not significant.

Ability Level Differences

Using Chi-square analyses, we found that both teachers' rating of child's math talent (Low, Average, High) and child's SCA in math (Low, Average, High) were related to help-seeking style (Excessive, Appropriate, Inadequate). In the reading domain, teacher rating of talent but not children's own rating of SCA was associated with children's help-seeking style. Observed and expected frequencies for math and for reading are reported by talent level in Table 1 and by self-concept of ability level in Table 2 along with chi-square values and p-values. Low SCA students in math and low Talent students in math and reading over engage disproportionately in both Excessive help-seeking and Inadequate help-seeking, and under engage in Appropriate help-seeking (especially in comparison to average and high ability students). Interestingly, teacher rated low talent students are most frequently observed to be Excessive help-seekers (43.5%), while children who report low SCA are overrepresented in the Inadequate help category (39.7%). However, more low SCA students than expected are also found in the category Excessive help-seekers.

Comfort seeking help

Gender and ability level differences

Separate 2 (gender) by 3 (SCAgeneral) ANOVAs with each of the reported comfort variables as the dependent measure revealed no significant results. Note that while SCA was related to teacher observation of timing of requests for help in math, there were no significant effects of SCA on student reports of how comfortable they feel about getting help.

How Mothers help

We examined mothers' and children's perceptions of the frequency of parents' help giving using 2(sex) by 3(SCA) ANOVAs. Both mothers (mean=4.16, SD=1.38) and children (mean=5.38, SD=1.38) report that parents help children relatively frequently. There were no main effects for sex or for SCA and no interaction effects.

Separate 2(sex) by 3(mother rating of child's competence) ANOVAs using mother's level of help-giving strategy in each domain as the dependent variables revealed that mothers did not vary their strategy use by child's sex in either domain, or by ability level in math. In the reading domain, there was a significant main effect for child's ability ($F(2,184)=3.50$, $p=.<.05$). Mothers reported using a "telling" strategy most often with children perceived to have low competence and least often with high competence children. Average competence fell in the middle. Means are reported in Table 3.

Separate discriminant analysis in the math and reading domains were conducted to identify helping strategies that differentiate between the mother-child pairs of Excessive, Appropriate and Inadequate help-seeking children. In neither domain did the type of help mothers provide serve to distinguish between any of the groups. In each case, all students were predicted to be in the Appropriate help-seeker category.

Help-seeking Style and Reported Comfort

Three separate ANOVAs using help-seeking style (math and reading combined) and child's sex as the independent variables to predict how comfortable children feel seeking help from mother, father, and teacher revealed that both Inadequate help seekers and Excessive help-seekers report feeling less comfortable than appropriate help-seekers about asking for help from teachers. ($F_{(2,168)}=4.51$, $p<.01$). See Figure 2. No other differences were significant.

CONCLUSIONS

Gender Differences

There were no gender differences found in this study either in reported comfort or in help-seeking style. In terms of timing of help-seeking then, girls and boys appear at this age to be engaging similarly in autonomous problem solving. However, it may be important in future research on timing of help-seeking to consider how the same help-seeking behavior by boys and girls may be differentially related to achievement gains for boys and girls (Fennema & Peterson, 1985; Koehler, 1990).

Ability Differences

The students most at risk from these analyses seem to be the low ability students. Yet in contrast to previous studies which have found low ability students to be the least likely to report they would seek help, this study found that many low ability students also appear to be asking for help "too soon." Excessive help-seeking may result in continued inability to adequately assess either one's own capabilities, or the type of help sufficient to lead to independent mastery in the future. We suggest that the inappropriate help-seeking patterns that children develop may be important predictors of future achievement and achievement related choices. For example, one set of students may steer away from classes that may require them to seek help, while another set of students may not be practicing the skills necessary to solve more difficult problems in the future

We also found that students who engage in excessive help-seeking report feeling just as (un)comfortable asking for help from teachers as Inadequate help-seekers. This finding suggests that future studies need to pay attention both to behavioral as well as self-report data in order to analyze appropriate areas of intervention. For instance, environments that are more supportive of, and conducive to, bids for help may improve the learning experience for inadequate help seekers, excessive help-seekers may also need further intervention regarding gauging an appropriate time to ask for help.

Domain Differences

An examination of help-seeking style and its relationship to self-concept of ability and talent across domains suggests that children are more likely to get help at an appropriate timepoint in reading compared to math. The stronger relationship in math between ability level and excessive help-seeking may reflect students' perceptions that math is more difficult than reading (Newman & Goldin, 1990), and that math is a domain where one learns by having someone else tell you what to do (Stodolsky, 1985). The finding that low ability children are disproportionately found to be excessive help-seekers, particularly in math, is consistent with previous findings that students tend to ask more questions in math compared to language arts classes (Good & Slavings, 1988; Nelson-Le Gall & Glor-Scheib, 1985).

However, the additional strong relationship between low SCA and low talent in math and the tendency to over engage in Inadequate help-seeking suggests that not all children are reacting to their perception of the math domain in the same way. Some children are less likely to get the help they "need." Possible moderaters of the relationship between help-seeking style and ability level deserve further attention.

Additionally, we found that teachers' rating of talent and children's rating of SCA were differentially related to help-seeking style across domains. The most clear distinction appears to be that teachers tend to place low talent children most frequently in the excessive help-seeking category, while at the same time identifying low SCA children most frequently as Inadequate help-seekers. We speculate that this difference may result from a teacher "bias" toward overidentification of some low talent students as Excessive help-seekers, possibly dependent on previous salient (negative) interactions with a child who has in fact asked for help. It is important to be aware of a possible teacher "bias," if teachers are to play a role in directing children's help-seeking to occur at more appropriate timepoints. This is especially important if we consider the possibility that teacher reactions to specific children may influence those children not to seek help even when help-seeking would be beneficial.

Help-giving

Findings from this study confirm that both mothers and children feel that parents spend time helping children with school work. Furthermore, helping frequency was not a function of student's ability level.

Although mothers are providing help, and strategy choice does vary by parent and by domain, mothers' reported use of different strategies did not serve to discriminate among students' help-seeking style in any way. One possibility is that parents' helping at home may not be directly related to classroom help-seeking styles. This is supported by the finding that children's help-seeking style is related to how comfortable they feel getting help from teachers but not from mothers or fathers. Future studies should address the possible interaction between the learning demands provided by the teacher, and the help-seeking styles students bring to the classroom.

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FIGURE 1

Sometimes children have **difficulty** with a particular <u>math problem</u> they are working on. Parents react in different ways when their children ask for help. Please indicate how often <u>you</u> use each of these strategies as a first step when this child comes to you for help with solving a **math** problem.

1	2	3	4	5	6	7
None of the time						All of the time

__I solve the problem for them and **tell** them the answer.
__I do the problem with them to **show** them how to solve it.
__I explain or give **hints** about how to solve the problem without actually solving the problem.
__I encourage them to try to solve the problem **on** their **own**.

Table 1
Percentages of children who use different styles of seeking help by teacher rated talent level in Math and Reading

MATH

HELP-SEEKING STYLE IN MATH	TEACHER RATED TALENT LOW N=46	AVG N=251	HIGH N=49
EXCESSIVE (15.9%)	43.5%	13.1%	4.1%
APPROPRIATE (58.7%)	21.7%	64.9%	61.2%
INADEQUATE (25.4%)	34.8%	21.9%	34.7%

X^2 (4)=44.40, p<.0001

READING

HELP-SEEKING STYLE IN READING	TEACHER RATED TALENT LOW N=41	AVG N=244	HIGH N=64
EXCESSIVE (14.9%)	29.3%	14.8%	6.3%
APPROPRIATE (59.9%)	39.0%	62.3%	64.1%
INADEQUATE (25.2%)	31.7%	23.0%	29.7%

X^2 (4)=13.99, p<.01

Note: expected frequencies are reported in parentheses below each help-seeking style

Table 2
Percentages of children who use different styles of seeking help by child's self-concept of ability level in Math and Reading

MATH

CHILD RATING OF SELF-CONCEPT OF ABILTY

HELP-SEEKING STYLE IN MATH	LOW N=58	AVG N=245	HIGH N=46
EXCESSIVE (16.0%)	24.1%	15.1%	10.9%
APPROPRIATE (58.7%)	36.2%	63.3%	63.0%
INADEQUATE (25.2%)	39.7%	21.6%	26.1%

X^2 (4)=15.34, p<.01

READING

CHILD RATING OF SELF-CONCEPT OF ABILTY

HELP-SEEKING STYLE IN READING	LOW N=52	AVG N=212	HIGH N=88
EXCESSIVE (14.8%)	19.6%	14.4%	12.2%
APPROPRIATE (60.2%)	57.1%	60.4%	62.2%
INADEQUATE (25.0%)	23.2%	25.2%	25.7%

X^2 (4)=1.48, ns

Note: expected frequencies are reported in parentheses below each help-seeking style

TABLE 3: Means and Standard Deviations for Mothers' Use of Four Different Helping Strategies by Mothers' ratings of Child's Competence in the Math and Reading Domains

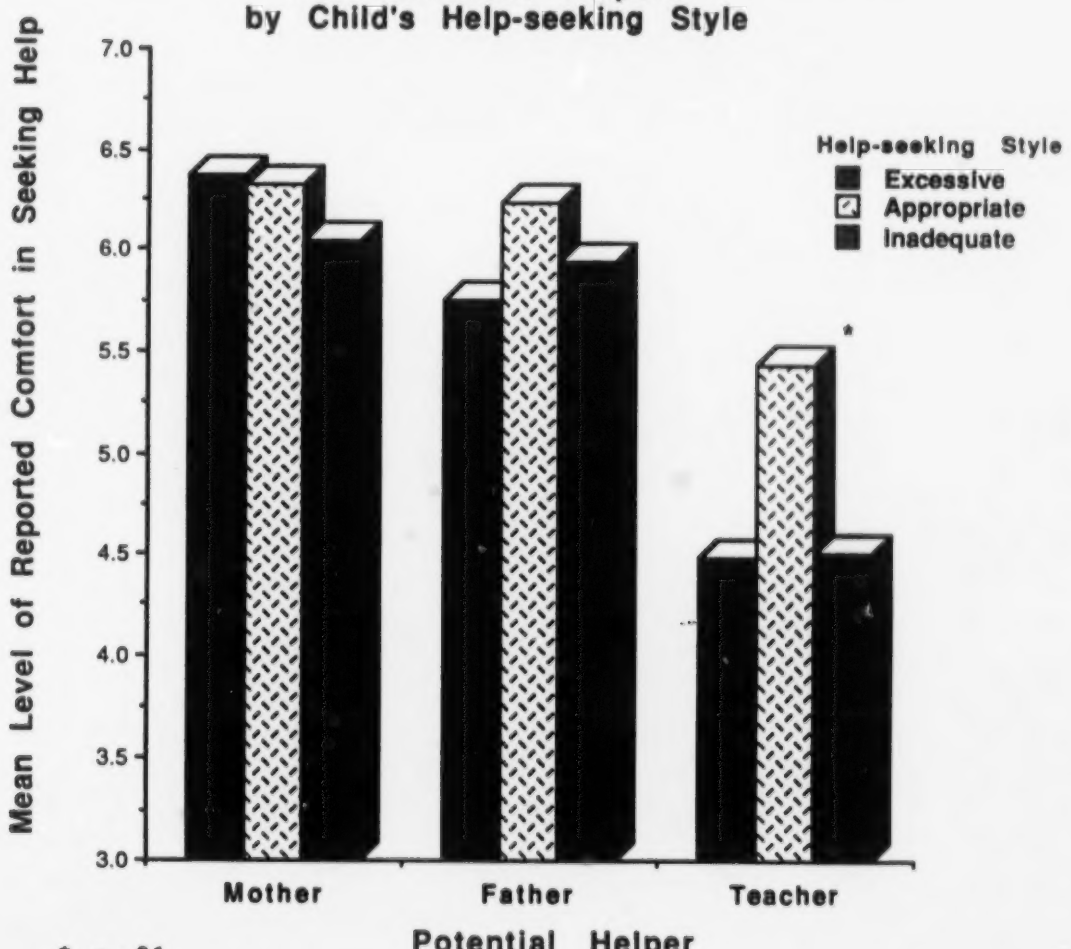
	Mothers' rating of Perceived Competence			
	LOW	AVG	HIGH	WHOLE SAMPLE
MATH				
Strategy				
Tell	1.6 (1.04)	1.7 (.85)	1.5 (.84)	1.6 (.88)
Show	4.5 (2.0)	4.4 (1.72)	4.6 (1.43)	4.4 (1.71)
Hint	5.0 (1.18)	5.3 (1.18)	5.6 (1.09)	5.3 (1.18)
On Own	4.6 (1.83)	4.7 (1.59)	5.1 (1.64)	4.8 (1.64)
READING				
Strategy				
Tell	4.2[a] (1.92)	3.6 (1.72)	2.9[a] (1.64)	3.6 (1.77)
Show	3.5 (1.57)	3.9 (1.62)	3.9 (1.54)	3.8 (1.60)
Hint	4.6 (1.65)	4.1 (1.79)	4.1 (1.69)	4.2 (1.75)
On Own	5.0 (1.60)	4.8 (1.74)	5.3 (1.33)	4.9 (1.66)

Note: Standard deviations are presented in parentheses

[a] indicate pairs are different, $p<.01$

FIGURE 2

How Comfortable Children Feel Asking for Help from Different Helpers by Child's Help-seeking Style



* p<.01